Symposium with Proffered Papers: Psycho-social aspects of radiation therapy: Late side effects and survivorship

SP-0317

Fear of recurrence and disease progression in long-term cancer survivors

L. Koch[1]
[1]*German Cancer Research Center, Clinical Epidemiology and Aging Research, Heidelberg, Germany*

Purpose/Objective: Fear of recurrence (FoR), generally defined as the fear of the disease recurring or progressing in the same organ or a different area of the body, is among the main and most important concerns for cancer survivors. As opposed to anxiety disorders, FoR is not necessarily an irrational fear, but a reaction to a real threat. Specifically high levels of FoR can be dysfunctional, overwhelming survivors and negatively affecting their quality of life. Younger age and a lower educational level were repeatedly shown to be associated with higher FoR, whereas disease and treatment characteristics like stage or therapy were generally not found to be associated.
Materials/Methods: Results are based on analyses of cross-sectional data of long-term cancer survivors (>5 years post-diagnosis) of the population-based CAESAR-study (**C**ancer **S**urvivorship – **a** multi-regional population-based study). Survivors were recruited by six German population-based cancer registries. Overall, 6057 long-term breast-, colorectal, and prostate cancer survivors were included in the analyses. FoR was assessed using the short form of the Fear of Progression Questionnaire (FoP-Q-SF). The associations of age, sex, cancer type, stage, recurrence/metastases, time since diagnosis, education, and social support with moderate/high FoR were identified via multiple logistic regression analyses.
Results: Even though the majority of long term cancer survivors reported to experience FoR in low intensity (87%), a significant percentage reported moderate (9%) or high (4%) FoR. Female survivors (Odds Ratio [OR] 3.49; p=0.002), survivors below 55 or 55 to 60 years of age (OR 3.32 and 2.70; p<0.0001 and p=0.0002), with an education of less than 10 years (OR 2.28; p= <0.0001), having suffered from a recurrence or metastases (2.48; p= <0.0001), or those being socially isolated (OR 2.78; p<0.0001) were at a greater risk to experience moderate/high levels of FoR. Cancer type and time since diagnosis did not reach statistical significance.
Conclusion: Even years after the initial diagnosis and completion of therapy, a substantial proportion of cancer survivors experience FoR at possibly debilitating levels. Our results indicate a potential vulnerability for women to experience FoR in high severity. Also younger and socially isolated survivors were at greater risk to suffer from high levels of FoR and should thus be monitored for high levels of FoR and should be offered the support needed to manage their fears.

SP-0318

From paediatric cancer to adult survivorship: negotiating psychological challenges of post-treatment

A. Higgins[1]
[1]*Queen's University Belfast, Doctorate in Clinical Psychology School of Psychology, Belfast, United Kingdom*

With medical advances in treatment, childhood cancer has become more akin to a chronic illness than a terminal disease. With advanced treatments and increased survival rates there is an emerging population of young adult survivors who may be faced with unique developmental and psychosocial challenges.
There are contradictory findings from the psychological evidence base as to whether survivors are at increased risk of psychological late effects as a result of their illness and/or treatment, with some studies reporting higher levels of psychological distress (e.g., Patenaude & Kupst, 2005) and others generally reporting good adjustment (Sundberg et al. 2009).
Irrespective of whether long-term survivors of childhood cancer are at an increased psychological risk, conclusive evidence appears to support the view that many experience problems in other domains such as education and career progression that greatly affect their quality of life.
On entering adolescence, survivors may experience a greater appreciation of their previous illness and its life-threatening nature. This can lead to fears of relapse and elevated levels of post-traumatic stress (Taylor et al. 2012). Emerging physical late effects such as compromised fertility may threaten the survivor's ability to negotiate life goals such as forming intimate relationships or parenting (Pivetta et al. 2011). Outcome studies have found greater percentage of long-term survivors in lower skill jobs than siblings (Kirchhoff et al. 2011) and unemployed (Kirchhoff et al. 2010). Langeveld et al. (2003) found percentages of those employed, married or parents were less than those in a comparison group of participants with no history of cancer.
Managing the combined demands of both adolescence/young adulthood and survivorship may mean that survivors may be more in need of psychological support during the post-treatment phase of their illness than during treatment. This presentation will explore these psychological and developmental challenges for young survivors post-treatment while highlighting the clinical implications for the professionals who treat them.

SP-0319

Psycho-sexual support for pelvic radiation therapy for women and the impact on Quality of Life

H. Toelen[1]
[1]*University Hospital Leuven, Gynecology, Leuven, Belgium*

Literature and clinical practice both indicate that women who are irradiated for cancer in the pelvic area do experience severe long term sexual side effects from the treatment. Amongst others, they suffer from diminished desire, atrophy, difficulty in reaching an orgasm, changed sensitivity of the vaginal walls, premature menopause, grief over loss of fertility, loss of vaginal elasticity, shortened and more narrow vagina, stenosis and dyspareunia.
While the side-effects such as premature menopause and loss of fertility are irreversible, the shortening and narrowing of the vaginal walls - and thus indirectly pain during a gynecological examination or during sexual activity - can be partially prevented. To prevent the shortening and narrowing of the vagina, women have to dilate the vagina three times a week for ten minutes. This hands on treatment is a helpful mean to keep both gynecological examination and sexual intercourse possible. It has been suggested that regular dilating is necessary up till two years after treatment.
A lot of women, however, report that this preventive "work" is psychologically burdensome. The necessity to dilate the vagina with an object, for example a dilator, is experienced as being embarrassing and artificial. Moreover, the knowledge that the vagina is irradiated and sensitive makes women fearful to start dilating based on the expectation of pain. However, the alternative of natural dilating by having intercourse is an idea that is often felt as coming too soon

after the invasive treatment and the idea of having intercourse 3 time a week is often too much for a couple. Moreover, again the fear of pain makes both the women and her partner reluctant for even trying intercourse.
In the literature we find that women who have been irradiated in the pelvic region express a need for information about the consequences of radiation therapy in terms of possible vaginal and sexual changes. Others have added that interventions aiming at improving (sexual) health have to take into account different aspects, e.g., the relationship, body-image, sexual identity and vaginal changes. Others revealed that women and their partners need individually tailored information and - practical advice about the side-effects of the treatment including a focus on sexual rehabilitation.
Based on a qualitative study, Cullen et al. (2013) formulated the following eight recommendations for professional counseling with women undergoing pelvic radiation therapy :

1. Introduce the dilator in a light and straightforward manner
2. Enhance dilator accessibility
3. Introduce the vaginal dilator early on in treatment
4. Emphasize (vaginal) health maintenance over intercourse as a benefit of dilator use
5. Explore and acknowledge women's values and views of sexuality
6. Increase awareness and sensitivity to emotional reactions
7. Enhance psychological educational resources for supporting vaginal dilator use
8. Ensure consistent institutional practice when introducing the dilator

During my talk, I will describe in more detail how these recommendations can be used in daily practice based on my experience in the University Hospital of Leuven, Belgium.

OC-0320

Pre-radiotherapy health related quality of life assessment associates with survival in lung cancer patients

S. Perez-Luque[1], J. Cacicedo[2], L. Delgado Arroniz[1], J.M. Praena-Fernandez[3], E. Montero[4], M.J. Ortiz Gordillo[4], J.L. Lopez Guerra[4]
[1]University Hospital Virgen del Rocio, Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla, Sevilla, Spain
[2]Cruces University Hospital, Radiation Oncology, Bilbao, Spain
[3]University Hospital Virgen del Rocio, Methodology Unit-Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla, Sevilla, Spain
[4]University Hospital Virgen del Rocio, Radiation oncology, Sevilla, Spain

Purpose/Objective: Lung cancer (LC) has a significant impact on patients' health-related quality of life (HRQOL). This study aimed to investigate the correlations among patient, tumor, and pre-radiation therapy treatment factors and the global health status (GHS) and functional scales scores reported by LC patients before radiation therapy (RT). In addition, we investigated whether the pre-RT HRQOL assessment impacts in survival.
Materials and Methods: We conducted a prospective multicentric study with a quality-of-life survey on 171 LC patients just before starting radiation treatment. HRQOL was assessed using the EORTC-QLQ-C30 (v3.0) questionnaire and GHS, physical (PF), role (RF), emotional (EF), cognitive (CF), and social functioning (SF) scores were evaluated. Several patient factors (age, sex, Karnofsky performance status [KPS], weight loss, duration of symptoms before diagnosis, living distances from homes to hospitals, respiratory/cardiac comorbidities, and smoking habits), tumor features (histology, stage), and other treatments before RT (induction chemotherapy and surgery) were considered for the analysis. Multivariate analyses were performed by using a logistic regression model, with a stepwise backward elimination procedure.
Results: The median age at diagnosis was 63 years (range, 35-89). The TNM classification was as follows: 7 I, 18 II, 129 III, and 17 IV. The median GHS, PF, RF, EF, CF, and SF scores for the entire group of patients were 58%, 73%, 66%, 75%, 83%, and 83%, respectively. In the multivariate analysis, patients losing weight prior to beginning RT reported lower GHS scores (OR 0.42; CI: 0.22-0.79; P = 0.007) and PF (OR 0.41; CI: 0.22-0.76; P = 0.005). In terms of SF, patients reporting higher SF scores before treatment had a lower risk of mortality (OR 0.20; CI: 0.42-0.95; P = 0.043) and relapse (OR 0.30; CI: 0.10-0.88; P = 0.029). In addition, patients with non-adenocarcinoma LC reported lower SF (OR 0.31; CI: 0.14-0.71; P = 0.005). Finally, patients who had induction chemotherapy reported higher EF scores (OR 2.00; CI: 1.06-3.77; P = 0.031).
Conclusions: Pre-RT HRQOL assessment associates with outcome in LC patients. Knowledge of these results may be used to assist the radiation oncology team to identify risk factors associated with lower HRQOL outcomes before RT and enable to make a collaborative multidisciplinary approach covering the specific needs for each patient.

OC-0321

Impact of urinary symptoms and incontinence on anxiety and depression 1 year after postprostatectomy radiotherapy

C. Cozzarini[1], F. Zuppardi[2], C. Fiorino[3], A. Briganti[4], A. Fodor[1], S. Naimo[1], B. Noris Chiorda[1], M. Pasetti[1], N. Slim[1], N. Suardi[4], L. Sarno[2], F. Montorsi[4], N. Di Muzio[1]
[1]San Raffaele Scientific Institute, Radiotherapy, Milan, Italy
[2]Università Vita e Salute, Faculty of Psicology, Milan, Italy
[4]San Raffaele Scientific Institute, Urology, Milan, Italy

Purpose/Objective: To evaluate the impact of variation of urinary symptoms and incontinence, prospectively evaluated by means of 2 validated questionnaires (QSTs), IPSS and ICIQ-SF (hereafter ICIQ), in the first year after post-prostatectomy (PoP) radiotherapy (RT) end, on anxiety and depression (ANX/DEP) as measured by HADS (Hospital Anxiety and Depression Scale) questionnaire.
Materials and Methods: In 2012 a prospective, observational, single Institute study for the evaluation of urinary toxicity from whole-pelvis RT (WPRT) was activated. This analysis pertains to the first 113 pts with available baseline (BSL) and end-RT IPSS, ICIQ and HADS QSTs. Median age was 66 years, median interval from prostatectomy to RT was 3.6 and 45 months for the 63 and 50 pts treated with adjuvant and salvage intent, respectively. RT was delivered with static-field IMRT, Tomotherapy and VMAT in 19, 54 and 41 pts, respectively, at conventional fractionation (CF, 1.8-2 Gy) in 45 pts, and moderate hypofractionation (HYPO, median 2.35 Gy/fraction) in 68. WPRT was delivered at 50.4 Gy/28 fractions in CF, at 52.50 Gy/28 fractions in HYPO. Adjuvant androgen deprivation (AAD, median 2 years) was prescribed for 32 pts. The prevalence of clinically significant (score ≥8) anxiety (ANX≥8) and depression (DEP≥8) before (n=113), during (half, n=95), at RT end (n=115) and 3 (n=96), 6 (n=90) and 12 (n=72) months after its completion were considered. Wilcoxon tests were performed to find significant differences